

# new york minute

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## Human Capital, Local Economic Development, & the Importance of Colleges & Universities

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### What is the Issue?

Social scientists have long recognized that higher levels of human capital—a person's knowledge and skills—contributes to one's own economic success. The human capital stock at a regional level can also contribute to local economic vitality. As the U.S. economy has shifted away from manufacturing and the distribution of goods to the production and dissemination of knowledge and ideas, human capital has become increasingly important to local economies. Regions with higher levels of human capital tend to have greater amounts of economic activity, more rapid economic growth, and their workers tend to be more productive and earn higher wages. Thus, building regional human capital is an increasingly important component of local economic development strategies. Colleges and universities have an important role to play in this regard.

### Human Capital & Local Economic Activity

While human capital includes a wide array of knowledge and skills, a college degree represents a significant piece of human capital development. Figure 1 shows the relationship between human capital ("HC Stock" - measured as the share of the adult population with a college degree) and economic activity (measured as GDP per capita) for metropolitan areas within New York State. New York City (NYC), Albany, and Rochester have relatively high levels of both human capital and GDP per capita, while Binghamton, Glens Falls, and Utica rank relatively low on both counts.

While the positive correlation between human capital and economic activity is clear, other factors contribute to differences in economic activity. For example, NYC's economic activity is especially high; it benefits from its dense economic environment and the amount of physical capital that has been invested in the area. By contrast, although Ithaca has a relatively high level of human capital, its large share of students tends to push down the GDP per capita. Moreover, this positive correlation does not necessarily establish a causal link. In fact, causality may well run in the opposite direction—higher levels of economic activity may lead to an increase in human capital levels if highly skilled people are attracted to more productive places. Taking these issues into account, recent research on a broad set of U.S. metropolitan areas

finds that a one percentage point increase in a region's college degree share leads to a two percent increase in economic activity.<sup>1</sup>

### Can Regions Increase their Human Capital?

Given the importance of human capital to the performance of regional economies, what can regions do to increase their human capital? Recent research suggests that a region's colleges and universities can enhance local human capital levels in two important ways.<sup>2</sup> First, if newly minted graduates remain in the area, they directly raise a region's human capital stock. However, skilled people are highly mobile and may not remain where they earn their degrees. Second, the knowledge created by colleges and universities through research can play a key role in raising the demand for human capital in a region by helping local businesses create jobs with high human capital needs. Because of the importance of physical proximity in the transmission of knowledge and sharing of ideas, academic research activities can provide a local benefit that is anchored to the region. In this case, the increase in human capital occurs regardless of whether businesses employ local graduates or import them from elsewhere.

The local economy can benefit from college and university research in many ways. Local businesses can utilize university knowledge and research facilities to create products and services, activities which require workers with college degrees. In addition, universities often utilize local businesses to develop and commercialize products that arise from their research activities. In fact, most major research universities have established technology transfer offices in an effort to more effectively harness the synergies between university research and commercial product development.

By increasing the supply of and demand for skill, colleges and universities raise local human capital levels, and, in fact, alter the composition of local labor markets. Metropolitan areas with more higher education activity tend to have a larger share of workers in high human capital occupations. This outcome is particularly connected to the research intensity of metropolitan areas, as linkages between local economies and higher education institutions appear to be strongest in activities requiring innovation and technical training, such as computers, math, and science, as well as business-related fields. Activities in these areas have been shown to be particularly important drivers of local economic development.

### Conclusions

The amount of human capital in a region is a key determinant of its economic vitality and long-run economic success. Colleges and universities, through producing degrees and engaging in research activities, can help increase both the supply of and demand for human capital. While many economic forces that affect the distribution of human capital across places are largely outside the control of policy makers, finding ways to more effectively harness the potential of a region's higher education institutions can provide a promising pathway to foster local economic development.

**Figure 1: Human Capital and Economic Activity in New York State**

| Metropolitan Area  | HC Stock    | GDP Per Capita |
|--------------------|-------------|----------------|
| New York           | 36.6%       | \$63,471       |
| Albany             | 35.1%       | \$46,172       |
| Rochester          | 32.4%       | \$42,022       |
| Syracuse           | 29.3%       | \$40,787       |
| Buffalo            | 27.9%       | \$38,403       |
| Ithaca             | 49.9%       | \$37,817       |
| Binghamton         | 24.4%       | \$32,702       |
| Poughkeepsie       | 33.3%       | \$31,752       |
| Utica              | 22.4%       | \$30,009       |
| Glens Falls        | 23.2%       | \$29,672       |
| <b>Correlation</b> | <b>0.43</b> |                |

Sources: HC Stock (2006): American Community Survey, U.S. Census; GDP Per Capita (2009): U.S. Bureau of Economic Analysis.

<sup>1</sup>Abel, Jaison R. and Todd M. Gabe. 2011. "Human Capital and Economic Activity in Urban America," *Regional Studies*, 45:8, 1079-1090.

<sup>2</sup>Abel, Jaison R. and Richard Deitz. 2011. "Do Colleges and Universities Increase Their Region's Human Capital?" *Journal of Economic Geography*, forthcoming.



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